

# **FINAL DATE DATA STANDARD & BUSINESS RULES FOR REPRESENTATION OF CALENDAR DATE**

## **Date Data Standard**

This State/EPA data standard was approved by the Environmental Protection Agency on January 20, 1999 and by the Environmental Data Standards Council on May 31, 2000.

<b>Data Element</b>	<b>Definition</b>	<b>EDR Data Element ID #</b>
Date	A particular day of a calendar year.	5432:1

## **Final Business Rules**

### **1. Purpose**

- a. This document lays out the business rules that support implementation and maintenance of the Agency's standard for representation of calendar date.
- b. This standard provides for a consistent numeric representation of calendar date to facilitate interchange of date data among Agency information systems.
- c. This standard provides for the accurate use of dates during systems operations.

### **2. Applicability**

- a. This standard is applicable for representation of date in data files for data interchange.
- b. This standard applies to all existing Agency applications, where such applications will continue operation before and beyond December 31, 1999, and wherever such operations would otherwise yield incorrect results because of the lack of a date format that includes a four-digit year.
- c. This standard applies to the Agency's acquisition of all applications software, whether commercial off-the-shelf (COTS) products, or custom-designed applications.
- d. This standard is to be employed by writers of Agency regulations, or by persons developing proposed legislation that will result in the collection of date data.

- e. This standard is not applicable to the physical, or logical storage of date data *within* commercial database management systems, or other software products.
- f. This standard is not applicable to the presentation of date on a printed report or a computer monitor.

### **3. Data Transfer Format**

- a. Calendar date data is represented as an eight-digit sequence, composed of numeric characters in the format YYYYMMDD, where YYYY represents the calendar year, MM represents the calendar month of the year, and DD represents the calendar day of the month, sequenced from high order to low order (i.e. year, month, day, from left to right, as shown above).
- b. The numbers that represent month of year and day of the month shall include leading zeros whenever their respective values contain only one digit.
- c. No separators are used between the time elements for the interchange of date.

### **4. Processing**

- a. Agency information systems must include the intelligence to accurately process dates into and beyond the year 2000.
- b. Calculations that determine and process leap years must be accurate.
- c. Date data that are output for data interchange must be in the data transfer format specified above.
- d. Agency information systems must have the capability to accept the data transfer format specified above for date as input from data interchange.

### **5. Roles and Responsibilities**

- a. The Chief Information Officer (CIO) shall:
  - 1. Ensure adherence to this data standard and supporting business rules and will be responsible for the resolution of conflicts and issues relating to the standard and business rules, including applicability.
  - 2. Provide guidance and technical assistance to program offices and the regulated community in meeting the requirements of this standard.
  - 3. Serve as the Data Standard Steward for this standard. The Data Standard Steward is responsible for the accuracy, reliability and currency of the

data standard.

4. Be responsible for issuing waivers from compliance with this standard in accordance with the procedures laid out in Section 7 of these business rules.
- b. Senior Information Resources Management Officers (SIRMOS) and Regional Information Resource Management (IRM) Branch Chiefs will:
1. Promote compliance with this standard.
  2. Approve application for waiver from this standard and submit it to the Chief Information Officer.
- c. National System Program Managers will:
1. Ensure that this standard is implemented as applicable in their systems.
  2. Work collaboratively with the Chief Information Officer (CIO) on continuing standards development and implementation.
  3. Identify and bring forward potential conflicts between these business rules, the underlying standards, and program systems needs.
  4. Serve as operational data stewards with responsibility for the accuracy and quality of the actual data within agency information systems.
- d. The Office of Reinvention will coordinate between EPA's Programs and Regions and the Agency's State partners and stakeholders for the implementation of standards and business practices in EPA's national systems.

## **6. Implementation**

- a. All new applications software acquired by the Agency must comply with this standard and must be certified by vendors to be in compliance with Year 2000 requirements, beginning January 1, 1998.
- b. All existing Agency applications must be compliant by the Year 2000 or earlier, wherever such operations would otherwise yield incorrect results because of the lack of a date format that includes a 4-digit year.
- c. EPA's national systems will implement this date standard and accept new data in the standard format from all participating States no later than September 30, 1999.

## **7. Provision for Waiver**

- a. A waiver may be granted by the Agency's Chief Information Officer (CIO) for:
  - 1. Legacy applications that are able to achieve compliance by means other than the use of this standard.
  - 2. Systems or applications that will be terminated and retired before the year 2000.
  - 3. Systems where the costs of implementing this standard are significantly higher than the benefits warrant.
- b. The requesting office shall draft an application to the CIO for a waiver providing the reasons why the data standard should not be implemented in the information collection. This application shall contain:
  - 1. An outline of the reasons why the data standard should not be implemented in the specific application.
  - 2. A risk assessment and cost-effectiveness evaluation of continued operation in a non-compliant mode.
  - 3. Approval of the waiver request by decision officials in the requesting office, as defined by EPA's System Lifecycle Management Policy and the organization's Senior Information Resources Management Official (SIRMO).
- c. The CIO shall notify the applying office in writing of the disposition of the waiver within 60 days of receipt.

## **8. Maintenance**

- a. This standard is one of several applicable to all Agency applications; as such, it will be reviewed, and updates will be scheduled at designated intervals, to be established by the Chief Information Officer (CIO).
- b. The first review of this standard shall occur before the end of the third quarter of Fiscal Year 2001; subsequent reviews shall occur at time intervals not to exceed 5 years.

## **9. References**

- a. American National Standard Representation for Calendar Date and Ordinal Date for Information Interchange, X3.30-1997, American National Standards Institute (ANSI).
- b. Federal Information Processing Standards Publications (FIPS PUB) 4-2, Representation of Calendar Date and Ordinal Date for Information Interchange; 1998. This version of the FIPS replaces FIPS PUB 4.1 and fully adopts ANSI X3.30-1997.
- c. ISO 8601, Data elements and interchange formats -- Information interchange C Representation of dates and times. International Organization for Standards, First Edition 1988-06-15 (currently under revision).